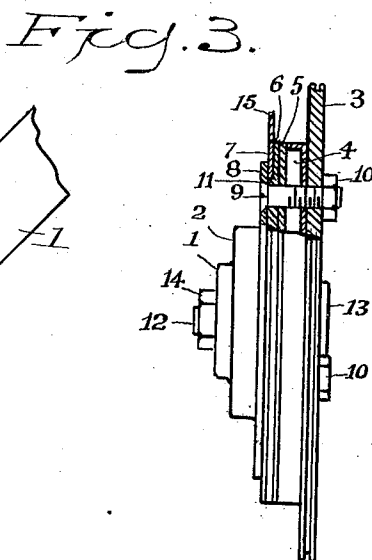
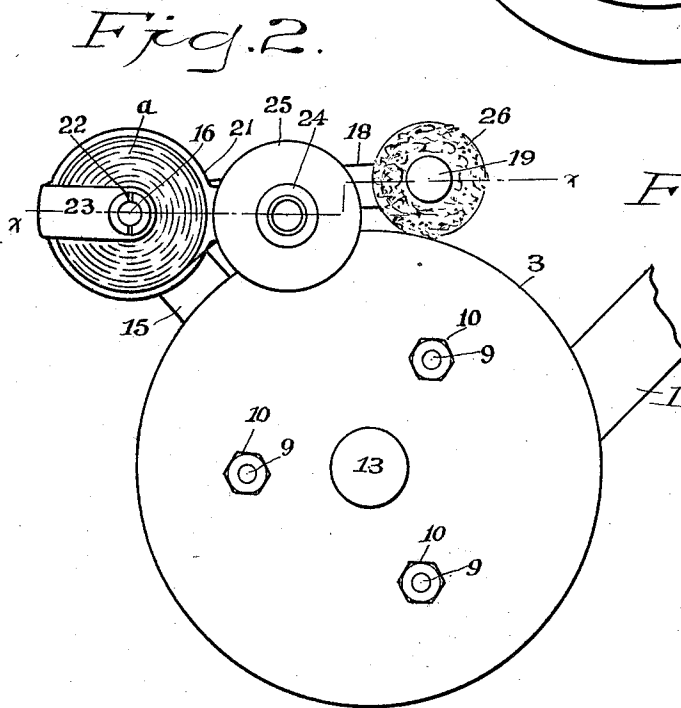
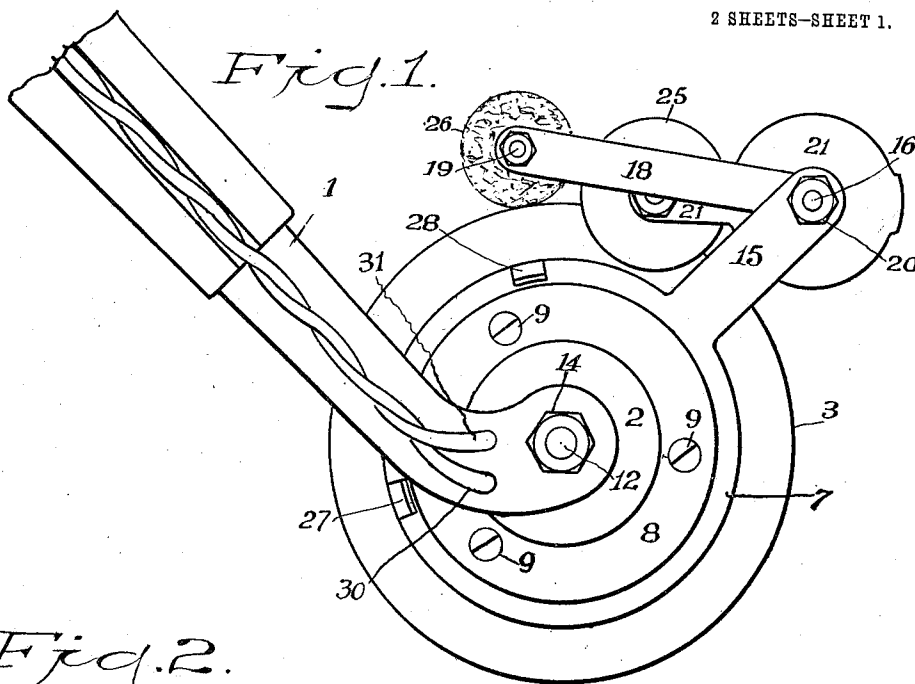


J. C. MERWIN & J. W. DONOVAN.
 APPLIANCE FOR SUPPLYING RIBBON GOLD TO ROTARY DISK GILDING TOOLS.
 APPLICATION FILED NOV. 18, 1911.

1,029,308.

Patented June 11, 1912.

2 SHEETS—SHEET 1.



WITNESSES:

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Fig. 4.

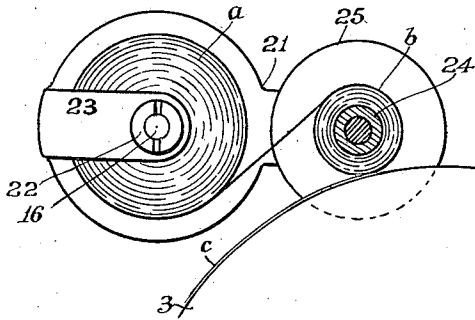


Fig. 5.

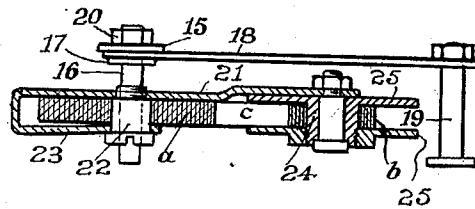
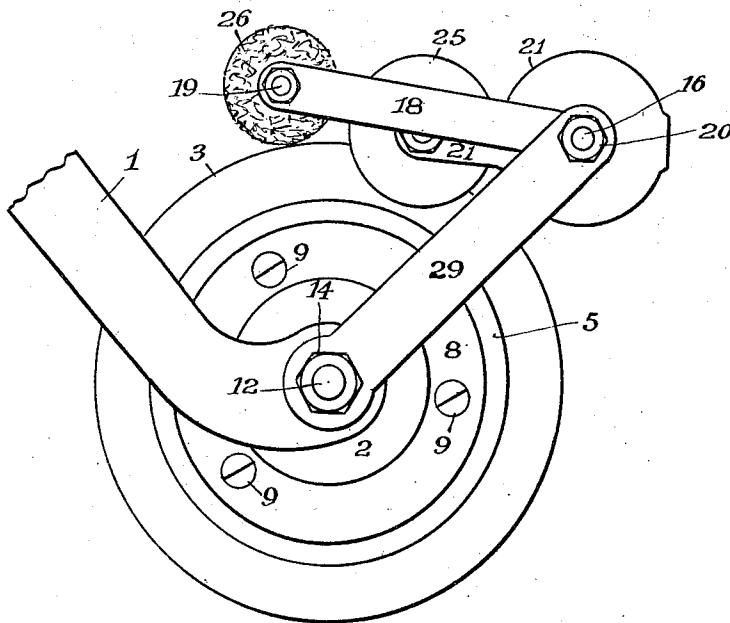


Fig. 6.



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UNITED STATES PATENT OFFICE.

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APPLIANCE FOR SUPPLYING RIBBON GOLD TO ROTARY-DISK GILDING-TOOLS.

1,029,308.

Specification of Letters Patent.

Patented June 11, 1912.

Application filed November 18, 1911. Serial No. 661,097.

To all whom it may concern:

Be it known that we, JOHN C. MERWIN and JOHN W. DONOVAN, both citizens of the United States, and residing in the city of Holyoke, Hampden county, Massachusetts, have invented certain new and useful Improvements in Appliances for Supplying Ribbon Gold to Rotary-Disk Gilding-Tools; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to an appliance for supplying ribbon gold to rotary disk gilding tools, and consists in the construction and association of elements hereinafter fully described and then particularly pointed out in the claims which conclude this description.

In the accompanying drawing Figures 1 and 2 are side elevations of our improvement looking from opposite sides—Fig. 3 a detail broken sectional edge elevation of the gilding tool—Fig. 4 a detail elevation of the element which supports the gold ribbon and distributes the same to the rotary disk—Fig. 5 a section at the line *x, x*, of Fig. 2 but showing in plan the frame that supports the gilding material, and Fig. 6 a side elevation of a modified form of our improvement.

Similar numerals of reference denote like parts in the several figures of the drawing. In appliances of this description it is necessary that the gilding tool should be heated in some suitable manner, but our invention has nothing whatever to do with such heating and we have merely shown an approved form of device in which the heating is effected by electricity, but we have shown no details in this respect nor will we enter into any description of the heating elements employed.

The main object of our improvement is to deliver the gold in ribbon form to the gilding disk and at the same time to wind up the paper used as a backing to the gold ribbon; also, a further object of our improvement is to so support the reel of paper backed ribbon gold and to so wind the paper after the distribution of the gold along the gilding disk, that it is impossible to tangle or disarrange either the paper or the gold,

all of which will be readily understood from the following description:—

1 is any suitable handle having at its lower extremity an integral cheek plate 2.

3 is the gilding disk, 4 the electric heater, 5 the cover plate to the heater, 6 a metal plate, 7 a friction ring and 8 a keeper ring, all of which parts are arranged concentrically, and held together by means of screws 9. These screws are passed through registering openings in the ring 8, the plates 6 and 5, and the disk 3, and their extremities are engaged with nuts 10 which are tightened firmly against the outer face of said disk. It will be observed from Fig. 3 that the aforesaid screws do not engage ring 7, that ring encircling an annular boss or hub on plate 6 through which the screw openings extend. In consequence, the ring 7, which is interposed between ring 8 and plate 6, will normally rotate with disk 3, but may be held stationary, in the manner hereinafter described, without preventing said disk from rotating.

The periphery of the gilding disk 3 may have any suitable pattern formed thereon, and is here shown as continuously grooved, so that the gold ribbon applied thereby will be firmly ironed in two parallel lines, the middle portion of the ribbon between said lines being subsequently removed with a brush.

12 is a bolt having a head 13, and upon this bolt are journaled the gilding disk and the parts 5, 6 and 7 directly associated thereto, the end of the bolt extending through the cheek plate 2 and handle 1 and being engaged by a nut 14 which is tightened firmly against the outer face of said handle, so that it will be readily understood that the said rotary parts are supported by the lower extremity of the handle.

15 is an arm extending radially from the friction ring 7 and projecting beyond the edge of the disk 3.

16 is a pin having an integral collar 17, and 18 is an arm carrying at its outer extremity a bearing 19, said pin extending through the other end of said extension 18 and also through the upper portion of the extension 15 and being engaged by a nut tightened firmly against the face of arm 15 so as to confine the arm 18 between said collar and said arm 15, thereby allowing

arm 18 to be revolved about said pin but with considerable friction.

The parts 15, 16, and 18 constitute a frame for carrying the reel of ribbon gold, the paper winding arbor and an oil roll which will now be described.

21 is a support to which the reel *a* of paper backed gold ribbon is journaled by means of a hollow screw 22. A finger 23 extends from the support and bears with a slight friction against the side of the reel of paper backed gold ribbon so as to prevent the same from revolving too freely and the screw 22 is passed through this finger and the back of the support.

24 is a winding arbor having spaced cheek plates 25, said arbor being journaled at the other end of the support 21, which latter is mounted on the frame by passing the pin 16 through the hollow screw 22 so that this support 21 will swing by gravity from said pin. When this support is in position on the frame as above described, the winding arbor will rest by gravity against the edge of the disk 3 and the cheek plates 25 will embrace said disk thereby preventing any lateral displacement of said support.

26 is an oil roll of any suitable material such as felt or any other analogous substance which roll is journaled around the bearing 19 and by swinging the arm 18 downwardly until the oil roll has a good contact against the edge of the disk the latter will be oiled preparatory to the delivery of the gold thereon as will be hereinafter more particularly described.

27, 28, are stops that extend from the ring 7 on opposite sides of the handle 1, these stops being omitted from Fig. 3 for the sake of clearness.

The operation of our improvement is as follows:—The workman attaches, by means of paste or otherwise, the end of the paper backed ribbon of gold to the winding arbor 24 and then grasps the handle 1 and rolls the disk 3, thus winding the material around the arbor 24 so as to present the gold ribbon *c* to the oiled disk 3, and the continued revolution of the disk thereafter will transfer the gold to the article to be gilded, which, in the present instance, is a book cover or back. As fast as the gold leaves the paper back and is transferred to the disk the paper *b* will of course be wound upon the arbor 24 and as the diameter of the wound paper is constantly increasing the support 21 will rise upwardly, swinging from its pivotal point.

Of course, the oil roll may be located at any other portion of the disk, and might be journaled to the handle if desired, and we therefore do not wish to limit ourselves to the provision of any oil roll on the frame itself. The oil might be applied by the fingers of the workman, or in any other suit-

able way, as by a brush, for instance, and it is therefore not at all essential that this roll shall be supported on the frame. As the workman rolls the disk along the article to be gilded the stop 27 will strike against the bottom of the handle 1 and thereafter the disk alone will revolve while the frame will remain stationary. If this stop 27 were not provided the frame and support would be carried by the revolution of the disk downwardly until they abutted against some stationary element such as the article to be gilded, and of course this would be fatal to the successful operation of our improvement. On the reverse movement of the disk, whether accidental or otherwise, the stop 28 abuts against the upper side of the handle and thereby prevents the arm 18 or the frame from coming in contact with such handle.

In gilding a round surface such as the back of a book, after the workman has rolled the disk across such back and prior to another similar gilding operation, he merely revolves the disk in the reverse direction so as to return the disk to its initial position, after which it may again be placed in contact with the rounded surface to be gilded without losing any appreciable amount of the gold. When the disk is turned in the reverse direction it will of course carry with it the frame and the support for the gilding material and therefore the latter will not be disturbed in the slightest degree.

The appliance illustrated in Figs. 1 to 5 is suitable for gilding straight surfaces or curved surfaces, but for straight gilding alone it is not necessary that the frame should be capable of a rotary movement independent of the disk, and therefore in Fig. 6 we have illustrated a modification in which the friction ring is dispensed with and an arm 29 is rigidly secured to the end of the handle and extends upwardly precisely after the manner of the extension 15, and the pin 16 is secured to the upper end of this arm in the manner heretofore described with respect to said extension. But in this construction illustrated in Fig. 6 any reverse movement of the disk will cause the paper to unwind from the arbor, the result being that the gold ribbon would probably become broken.

We therefore do not wish to be limited to any particular manner of securing the element which forms a frame on which the roll of gilding material and the paper winding arbor are supported.

30, 31, are the insulated electrical conductors which lead to suitable contacts (not shown) whereby the heating of the parts 4 and 3 is effected, and in this connection we would call attention to the fact that our improvement is particularly advantageous,

since the frame and support 21 become quite hot, but it is merely necessary when a reel of the gilding material has become exhausted to remove the support 21 and substitute in its place another similar support with the gilding reel in proper assembled position, and its extremity secured to the winding arbor.

Having thus described our invention what we claim as new and desire to secure by Letters Patent is:—

1. In an appliance of the class specified, the combination, with a foil depositing disk, and a handle to which said disk is rotatably connected; of a frame mounted adjacent said disk; a support pivoted at one end to said frame; a rotary paper winding arbor mounted in the other end of said support and normally resting upon the periphery of said disk, whereby the rotation of the latter will effect that of said arbor; cheek plates carried by said arbor and embracing said disk at opposite sides thereof, to hold said support in position with respect to said disk; and a reel of paper backed metallic foil carried by said frame, the free end of the paper backing being attached to said arbor, whereby the foil will be deposited upon said disk and the backing wound upon said arbor during the rotation of said disk.

2. In an appliance of the class specified, the combination, with a handle provided at one end with a bolt, and a foil depositing disk rotatably mounted on said bolt; of a friction element arranged concentrically of said disk; clamping means associated with said element for causing the same to rotate with said disk during a portion of the rotary movement of the latter in one direction; means for holding said friction element stationary during the remainder of such rotary movement; a frame associated with said friction element; and a reel of metallic foil carried by said frame and adapted to be deposited upon said disk during rotation thereof.

3. In an appliance of the class specified, the combination, with a handle provided at one end with a bolt, and a foil depositing disk rotatably mounted on said bolt; of a friction element arranged concentrically of said disk; clamping means associated with said element for causing the same to rotate with said disk during a portion of the rotary movement of the latter in one direction; means for holding said friction element stationary during the remainder of such rotary movement; a frame associated with said friction element; a reel of metallic foil carried by said frame and adapted to be applied to said disk during rotation thereof; and a member arranged to engage said handle during reverse rotation of said disk for limiting such rotation, to prevent said frame from striking against said handle.

4. In an appliance of the class specified, the combination, with a handle provided at one end with a bolt, and a foil depositing disk rotatably mounted on said bolt; of a friction element arranged concentrically of said disk; clamping means associated with said element for causing the same to rotate with said disk during a portion of the rotary movement of the latter in one direction; means provided upon said friction element and arranged to engage said handle, to hold the friction element stationary during the remainder of such rotary movement; a frame associated with said friction element; and a reel of metallic foil carried by said frame and adapted to be deposited upon said disk during rotation thereof.

5. In an appliance of the class specified, the combination, with a handle provided at one end with a bolt, and a foil depositing disk rotatably mounted on said bolt; of a friction element arranged concentrically of said disk; clamping means associated with said element for causing the same to rotate with said disk during a portion of the rotary movement of the latter in one direction; means provided upon said friction element and arranged to engage said handle, to hold the friction element stationary during the remainder of such rotary movement; a frame associated with said friction element; a reel of metallic foil carried by said frame and adapted to be deposited upon said disk during rotation thereof; and means independent of the first-named means provided upon said friction element and arranged to engage said handle during reverse rotation of said disk for limiting such rotation, to prevent said frame from striking against said handle.

6. In an appliance of the class specified, the combination, with a handle provided at one end with a bolt, and a foil depositing disk rotatably mounted on said bolt; of a friction element arranged concentrically of said disk; clamping means associated with said element for causing the same to rotate with said disk during a portion of the rotary movement of the latter in one direction; a stop provided upon said friction element and arranged to engage said handle to hold the friction element stationary during the remainder of such rotary movement; a frame associated with said friction element; and a reel of metallic foil carried by said frame and adapted to be deposited upon said disk during rotation thereof.

7. In an appliance of the class specified, the combination, with a handle, and a foil depositing disk rotatably connected thereto; of a frame mounted adjacent said disk; a support pivoted at one end to said frame; a rotary paper winding arbor mounted in the other end of said support and normally resting upon the periphery of said disk, whereby

the rotation of the latter will effect that of said arbor; cheek plates carried by said arbor and embracing said disk at opposite sides thereof, to hold said support in position with respect to said disk; a reel of paper backed metallic foil carried by said frame, the free end of the paper backing being attached to said arbor, whereby the foil will be deposited upon said disk and the backing wound upon said arbor during the rotation of said disk; a brake finger provided upon the first-named end of said support in frictional engagement with said reel; and an oil roll mounted in said frame and arranged for movement into contact with the periphery of said disk.

8. In an appliance of the class specified, the combination, with a handle provided at one end with a bolt; of a foil depositing disk, a heater, and a pair of plates rotatably mounted upon said bolt in juxtaposed relation and connected together; an annular friction element interposed between said plates; a frame connected to said friction element; a reel of metallic foil carried by said frame and adapted to be applied to said disk during rotation thereof; and a pair of stops provided upon said friction element and adapted to abut against oppositely-disposed parts of said handle to prevent the rotation of said frame beyond predetermined limits.

9. In an appliance of the class specified, the combination, with a handle provided at

one end with a bolt; of a foil depositing disk, a heater, and a pair of plates rotatably mounted upon said bolt in juxtaposed relation and connected together; an annular friction element interposed between said plates and provided with a radial arm having a pivot member connected thereto; a support pivoted at one end upon said member; a rotary paper-winding arbor mounted in the other end of said support and normally resting upon the periphery of said disk, whereby the rotation of the latter will effect that of said arbor; cheek plates carried by said arbor and embracing said disk at opposite sides thereof, to hold said support in position with respect to said disk; a reel of paper backed metallic foil carried by said frame, the free end of the paper backing being attached to said arbor, whereby the foil will be deposited upon said disk and the backing wound upon said arbor during the rotation of said disk; and a pair of stops provided upon said friction element and adapted to abut against oppositely-disposed parts of said handle, to prevent the rotation of said frame beyond predetermined limits.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN C. MERWIN.
JOHN W. DONOVAN.

Witnesses:

G. A. WILMS,
G. W. MONGEAU.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."